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KEEN-Regions

Knowledge and Excellence in European Nanotechnology Regions

REGIONS OF KNOWLEDGE Maximising the benefits of research infrastructures for regional economic development

D 4.3 – JAP Business Plan

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RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

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0 Introduction

The JAP Business Plan complements and integrates the implementation steps set out in D4.2 Joint Action Plan.

The document identifies for each of the 22 individual actions included in the JAP:

- The period needed to set up and launch the activity (i.e. definition of a plan of activities, planning of financial resources, hiring and training of personnel, acquisition of equipment etc.);
- The budget needed to start up the activity as well as to support it during the first year;
- The financial schemes/sources apt to fund the activity.

The business plan foresees a large use of Structural Funds to boost the expected impact of the JAP and to take full advantage of collaboration among regions and research-driven clusters. It also valorises the use of different European funding schemes. In particular, several activities foresee the commitment from the partners to work together to the elaboration and submission of projects' proposals in the next programming phase.

Funding is required to implement many of the JAP individual actions identified by the KEEN Regions partners. Public funding (**PU**) can intervene in funding activities that have indirect or direct impact on the market. In particular, public funding is required in all those initiatives related to mapping and analysis, which lay the ground for future actions, and for pilot activities (i.e. the programme "Business gains brains") aimed at stimulating a new attitude towards Nano and research from the business. Private funding (**PR**) is foreseen for all activities which either benefit companies directly or offer them concrete services. Finally, 6 out of 9 transnational actions are going to be supported with staff working time from the partners, something which implies a strong commitment on their side but a high implementability of the actions as well.

1 Local actions: Veneto

Action 1: Nano-coaching for entrepreneurs

Description of activities and key stakeholders

The aim is to proceduralise a model for offering coaching sessions on Nano-opportunities to companies with similar needs and operating in similar areas.

This will be carried out by developing a "workshop + guided visit in lab" format. Researchers will give an overview of what Nanotechnologies are and what they can do in the specific sector of the selected companies. Successful cases will be presented during the workshop, with the entrepreneurs telling their experience. Afterwards, the companies will be involved in a tour to laboratories, where concrete Nano applications will be presented.

The beneficiaries will be mainly micro and SMEs, gathered according to the economic sector they refer to. As a consequence, the initiative will be promoted jointly by business associations and nanotechnology research actors.

Expected Impact

- Strengthened collaboration between Veneto Nanotech, business associations and companies;
- Dissemination of nanotechnology applications among companies;
- Increased collaboration between companies and nanotechnology providers.

Steps to implementation

- Veneto Nanotech takes the lead of the initiative and disseminate its aims among all potential stakeholders (business associations and research centres);
- Stakeholders interested in the initiative express their will to participate;
- A working group is set up with the aim to define a common format and common procedures;
- Each business association is in charge of collecting the expressions of interest from its associated companies and to schedule the activities jointly with the relevant research actors.

Responsible organisation	Development timeframe	Start-up budget range (year 1)	Sources of funding	Notes
Veneto Nanotech/Business Associations	3 months	< 15.000 €	PU - self-funding research centres PR - self-funding business associations	The modules can be replicated by different local business associations

Action 2: Nano-package for companies

Description of activities and key stakeholders

The action provides companies with a package of services to help them envisioning a concrete way to boost their business. In concrete terms, companies will be suggested to adapt an existing nanotechnology application or to undertake a new research development. A broker will assess the company's needs, providing the contacts with external experts, and will evaluate the risks and the commercial advantages of the proposed solutions. This role will be undertaken by business associations, which with the help of a team of experts will support the SMEs or a network of SMEs in the definition of the implementing steps, as well as the planned costs.

SMEs with a low capacity to invest considerable amount of money and time for developing a new technology will be the privileged target of this action. Promising sectors in relation with Nanotechnologies will access the service: mechanics and mechatronics, plastic chemistry, wood products, constructions (focus on buildings renovation).

Expected Impact

- Increased innovation activities related to Nanotechnologies;
- Business-research cooperation enhanced;
- More businesses compete in global markets.

Steps to implementation

- Interested business associations agree on a common model to structure a service package for companies;
- Each business associations defines how to fund the initiative with regards to its relevant beneficiaries;
- A list of potential service providers is created following a call for applications;
- Communication materials related to the Nano-package are created and disseminated. Successful cases are used to promote the service;
- Each business association informs its associate members on the opportunities, and it is responsible for adjusting the offer in relation to the standard profile of its members.

Responsible organisation	Development timeframe	Start-up budget range (year 1)	Sources of funding	Notes
Business associations/CRACA	10 months	< 15.000 €	PR - fees from client companies PU - regional funding (voucher scheme)	The start-up budget includes structural costs covered with private fees. The voucher scheme could be used to support companies in purchasing the service

Action 3: Rent equipment and a research team for your business!

Description of activities and key stakeholders

The action will encourage companies to exploit existing research infrastructures and have their staff teaming up with researchers. The complete list of the tools and techniques, together with possible applications of new materials, shall be made available. The companies will have the opportunity to ask for consulting and to visit the laboratories. The dissemination activity of the relevant actors will be companies-oriented and will include all necessary information, such as a specific list of infrastructures and available equipment, and a list of applications organized by sector and industry. The information activity will favour the rental of equipment and research staff by the companies.

All companies located in the Veneto Region and in the national territory will benefit from this action. Veneto Nanotech, which hosts the Nanofabrication facility, will take all necessary actions to implement it and to ensure the needed visibility.

Expected Impact

- Enhanced visibility of the Nanotech research infrastructures;
- Increased awareness on nanotechnology applications at local level;
- More collaboration agreements between companies and research infrastructures.

Steps to implementation

- A recognition of existing equipment and a comprehensive list of nanotechnology applications is made;
- The communication of relevant research institutes is adjusted accordingly;
- The conditions for the rental and the use of research infrastructures and equipment by the companies are defined;
- A database of interested companies is created and constantly updated;
- Companies are informed about the service's opportunities.

Responsible organisation	Development timeframe	Start-up budget range (year 1)	Sources of funding	Notes
Veneto Nanotech	3 months	< 25.000 €	PR - fees from client companies PU - regional funding	The majority of costs has to be supported by the client companies. Public funding could serve the purpose of setting and updating a database of existing equipment and a list of nanotechnology applications

Action 4: e-NanoMarketplace

Description of activities and key stakeholders

To further improve the collaboration between companies and research centres, an interactive tool will be made available. A web platform will be structured in two areas: an information portal will give an overview of available tools and techniques (with the possibility to have also detailed scientific information) and to the possible applications and properties of nanostructured materials; a second area designed to foster the match between companies and research centers.

To this aim, the existing KEEN-Regions website might be used and adapted. As the platform is expected to benefit both companies and research centres, it shall be managed and moderated by the regional agency for innovation.

Expected Impact

- A dynamic space for matching demand and offer at national level is created;
- Increased number of companies embracing Nanotechnologies;
- Maximized use of Nanotechnologies at local level.

Steps to implementation

- The regional agency for innovation and the regional authority agree on the terms for the implementation of the platform;
- The concept of the platform and the process model are carefully defined involving all relevant stakeholders at regional level;
- An expression of interest from relevant research centres is collected;
- A strong dissemination campaign is launched.

Responsible organisation	Development timeframe	Start-up budget range (year 1)	Sources of funding	Notes
Veneto Innovazione	12 months	€ 50.000 - 100.000	PU - l.r. 9/07 - EEN Network PR - fees from client companies PR - sponsorships	Fees from client companies consist in an annual canon paid by those companies willing to benefit from the portal' services Private sponsors are given visibility in the portal's related activities

Action 5: Nanotech Demo centre in Veneto

Description of activities and key stakeholders

The Demo centre on nanotechnology applications will showcase possible solutions in one facility, providing visitors with hands-on examples of what Nanotechnologies can do in different fields of application. The utilization of virtual

models and of 3D virtual design will offer concrete opportunities for SMEs to access technological simulations. The centre shall put at disposal of the companies virtual reality simulation tools to support the experiencing of Nano applications.

The main target visitors are companies, especially SMEs, which can be sensitized by taking part to testing activities. Entrepreneurs will see and touch the advantages and potentialities of using Nanotechnologies to upgrade their products or to materialize new product ideas.

The Demo centre will be hosted and managed by research institutions, holding the necessary competences and equipment. The involvement of companies associations is fundamental to ensure the visibility and the success of the initiative.

Expected Impact

- Increased awareness of Nanotechnologies by the companies;
- Take on of a user-driven approach to Nanotechnologies;
- Increased commercialization of Nano-related products.

Steps to implementation

- The relevant regional stakeholders and companies associations agree on the set-up process of the Demo centre and define a clear business plan with a long-term funding logic;
- Software technologies are acquired and spaces/equipment/dedicated personnel identified;
- Promotional activities are planned and implemented.

Responsible organisation	Development timeframe	Start-up budget range (year 1)	Sources of funding	Notes
Veneto Region - Veneto Innovazione	24 months	€ 300.000 - 500.000	PU - ERDF ROP PR - fund-raising activities with private investors PR - fees from the companies for advanced demonstration	The Demo centre is expected to open its doors to the general public/students, that is why it shall attract the interest of private sponsors

Action 6: Programme "Business gains brains"

Description of activities and key stakeholders

The programme will aim to develop the SMEs competitiveness, by facilitating the acquisition of innovative knowledge from qualified external research facilities and services such as Universities, public research bodies, public and private laboratories and networks of Science Parks and Technology Clusters. Industrial research and experimental development contracts will be funded. SMEs will have the possibility to collaborate with external

bodies, because of their inability to conduct the research internally, or to benefit from the "temporary use" of researchers/expert staff.

The implementing body of the action will be the regional authority, whereas the stakeholders involved will be the Universities, together with the local knowledge providers.

Expected Impact

- Enhanced Academia to business mobility;
- Increased research on Nano-related products;
- Valorized human capital in business.

Steps to implementation

- A mapping of technological providers in the Region is undertaken;
- Relevant regional stakeholders are involved in the definition of the action;
- Administrative procedures are accomplished by the Regional Authority;
- The programme is launched.

Responsible organisation	Development timeframe	Start-up budget range (year 1)	Sources of funding	Notes
Veneto Region	6 months	1 - 2 M€	PU – ERDF (Action 1.1.3)	None

2 Local actions: Basque Country

Action 1: Disseminating nanotechnology

Description of activities and key stakeholders

Each of the research institution partners in KEEN-Regions has already organized some dissemination sessions. In particular, nanoGUNE has organized some events or workshops to disseminate information about the state of the art in nanoscience research and to collect current interests and needs from the business side.

In order to promote innovation in Basque companies other dissemination activities are organized in the region, such as the Business Global Conference, the reference conference on innovation, technology and knowledge of the Basque Country, where managers of companies with success stories of all markets, small, medium and large companies, from all areas of the organization participate with international experts in innovation and exchange mechanisms and dynamics of collaboration through the sharing of ideas, leading to innovation. Furthermore, there are other dissemination sessions organized individually by each of the technology centers, or institutions that promote innovation.

Despite being carried out these kind of dissemination activities individually designed by each research institution, this action intends to offer dissemination sessions specifically designed for each type of company, also including in these sessions companies that are developing activities based on nanotechnologies in order to present concrete examples of applications, showing the main benefits and also the barriers and the problems they are facing.

Expected Impact

- Raised awareness on nanotechnology applications among companies;
- Increased collaboration between companies and nanotechnology providers.

Steps to implementation

- The relevant stakeholders agree on a common model and common procedures;
- Cluster associations and research institutions identify local companies or industrial sectors that could be costumers to locally developed nanotechnology;
- An exercise to identify the needs of target companies is planned. Clusters associations and research institutions match their respective knowledge on companies' needs and on the technology offer;
- Design of the program of the session trying to find companies to serve as examples to others.

Responsible organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
Research institutions and SPRI-nanoBasque	3 months	€ 25.000 - 50.000	PU - own partners' funding	3-4 dissemination sessions each year

Action 2: Knowledge Map of Nano-technology offer

Description of activities and key stakeholders

Despite the fact that each of the research institutions websites provides information on the expertise, research areas, research team, equipment, types of developed projects and collaborations, no public regional mapping of the research capacities and expertise that work in the Nano field exists.

The Knowledge Map will offer homogeneous information of all Basque research institutions in just one document. It will facilitate the identification of the research institution for specific requests and it will also serve to raise awareness, both in our own region and beyond, of the available capabilities in nanoscience, micro and nanotechnologies in the Basque Country.

The Knowledge Map will be realized by nanoBasque Agency – SPRI, in collaboration with the Basque research institutions, in order to involve them in the process and collect up-to-date information about their activity. Contents provided by the research institutions will mainly relate to industrial applications.

The Knowledge map will include the following information:

- General data of the Research Institution such as name, type of organization, contact data, etc.
- Main results such as patents, articles, thesis and spin-offs;
- Description of the research lines related to micro and nanotechnologies specifically describing the potential applications of these research lines in the different industrial sectors;
- Description of research projects;
- Collaborations with companies.

Expected Impact

- Facilitated identification of the research institutions for specific requests;
- Increased research-industry collaboration.

Steps to implementation

- The concept development phase is carried out by nanoBasque Agency – SPRI;
- All research institutions dealing with nanoscience, micro and nanotechnologies in the Basque Country are requested to fill in a questionnaire with all relevant information;
- nanoBasque Agency – SPRI collects and organizes gathered information and implements the tool;
- A robust dissemination plan is drafted and implemented.

Responsible organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
SPRI - nanoBasque	4 months	€ 25.000 - 50.000	PU - own SPRI funding	

Action 3: Equipment for nanotechnology reference book

Description of activities and key stakeholders

One of the main barrier identified by Basque Companies to start their activity in the nano field is the access to equipments and infrastructures.

The purpose of the action is to offer to companies a complete list of services offered by the Basque research centres, which includes the following information: equipment, services offered using these equipment, areas of application, instrumental techniques used, location and contact.

nanoBasque Agency-SPRI has made a first exercise to know or identify the most important infrastructures in each of the research institutions working in the micro-and nanoscale and their level of use. The development of a complete list of the equipment and infrastructures to be used by the companies will require to complete the analysis with all the research institutions, make an effort to standardize a level of uniqueness that allows a map of the most important infrastructures in the Basque Country and especially to identify the services offered by these infrastructures gathering equipment, where appropriate, for services they can offer to interested companies.

nanoBasque Agency – SPRI will involve some companies in the process of elaboration of the list, as only testing with them the way services and equipment are organized and the information contained, in order to make it useful for companies.

Expected Impact

- Maximized use of the available equipment in research institutions by other agents;
- Transition of local R&D infrastructures towards "Foundry model" which further allows new business models for nanotechnology (fabless nano company);
- Fostered use of the equipment and research infrastructures by companies;
- Fostered collaboration between companies and research institutions.

Steps to implementation

- nanoBasque Agency – SPRI drafts a work plan, defining the information to be collected and how to organize it;
- Personnel with specific knowledge about business demands and needs and also knowledge about techniques and equipment and several companies are involved in the implementation process;
- A robust dissemination plan is drafted and implemented.

Responsible organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
SPRI - nanoBasque	4 months	€ 25.000 - 50.000	PU - own SPRI funding	

Action 4: Directory of Basque companies with micro-nanotechnology activities

Description of activities and key stakeholders

In 2009 the nanoBasque Agency- SPRI carried out a study based on a questionnaire, that identified a total of 68 companies with activities related to micro-nanotechnologies. The nanoBasque agency is willing to incorporate a private data collection and monitoring system in its website, in which companies can register and update their activity. The information obtained through the system is useful for several purposes. Firstly, it will feed a search engine that provides third party identification and contact with companies. Secondly, aggregate information for all companies will give a useful contribution for the annual report "Use of micro and nanotechnologies in the Basque business fabric."

This system of monitoring and data collection is key to the directory because it will be the main source of information on the Basque companies working with micro/nanotechnologies and it will allow nanoBasque to update the directory once a year when the companies introduce the information in the system.

The directory will contain the following information:

- Sector of activity and the main activity area of the company;
- Short description of company profile;
- Application area of nanotechnology including what they offer, to whom, the reason why their offer is better than others, how could be implemented in customer´s products...
- Key words that define or identify their activities related to nanotechnologies;
- Contact details and other relevant information such as year of establishment, number of employees and turnover range.

Expected Impact

- Facilitated identification of companies active in these fields;
- Marketing of the companies supported as it allows searching by anyone interested;
- Arisen interest in micro/nanotechnology of other companies;
- Raised awareness on nanotechnology applications among other companies;
- Nanotech companies pushed into more customer-oriented communication.

Steps to implementation

- The concept idea has been already developed by nanoBasque Agency – SPRI;
- The web tool is mostly implemented;
- A communication campaign to make companies aware of the benefits of being part of the directory will be planned and launched;
- Companies have to update their data using the data collection system;
- Use these updated data to complete the directory information.

Responsible organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
SPRI - nanoBasque	4 months	< 25.000 €	PU - own SPRI funding	

Action 5: Nanotech showroom

Description of activities and key stakeholders

In June 2010 BTEK, the Basque Technology Interpretation Centre of the Bizkaia Technology Park was opened with the aim of taking technology closer to young people, mainly at secondary school level, promoting a scientific and technological culture among young people. The centre has different spaces such as the "Innovation Kiosk" that offers information on the latest scientific and technological advances in our environment or the "Full steam ahead! other worlds around us" where Nanotechnology, Biotechnology, Robotics and Sustainability are the main modules. The idea of the proposed activity is to give more visibility, using the existence of this center, to all the developments made in the Basque Country in the field of nanotechnology, not only by the scientific-technological agents but also by companies and guide this activity not only to students, but also to other companies and entrepreneurs.

The main target visitors in this case will be companies and entrepreneurs in order to show them the advantages and potentialities of using nanotechnologies.

The involvement of all the research institutions and active companies is fundamental to ensure the visibility and success of the showroom.

Expected Impact

- Increased awareness of nanotechnologies by the companies and by the society in general;
- Increased scientific and technological culture among young people.

Steps to implementation

- Agree with the Center on the terms of the implementation of the activity;
- Involvement of all stakeholders in providing content to the showroom and updating them;
- Promotional activities are planned and implemented.

Responsible organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
SPRI – nanoBasque	6-12 months	50.000-100.000 €	PU - own SPRI funding	

3 Local actions: Rhône-Alpes

Action 1: Rhône-Alpes Nano-applications booklet

Description of activities and key stakeholders

The Rhône-Alpes Nano-applications booklet aims to

- Mobilize SMEs, which are not yet mature enough, to engage a collaborative R&D program with a public research institute;
- Provide a spectrum of business development activities and creative methodologies, to ensure the start-up of concrete innovation projects and which provide commercial success;
- Transform into technical specification the SMEs needs, in order to conduct prototype development and proof of concept.

A comprehensive and attractive booklet will describe the most relevant Nanotechnology applications and will be especially targeted to people in charge of the canvassing of the companies.

A working group will be set up at local level, with representatives of the cluster association and a representative of the Chamber of commerce. The first actor knows very well its own members and their needs, while the role of the Chamber of commerce is to support the mapping phase of all the companies involved in nanotechnologies.

Expected Impact

- Widened range of tools at disposal of research institutions for canvassing the SMEs;
- Raised awareness on nanotechnology applications among companies;
- Consolidate the existing detection mechanisms of SME's

Steps to implementation

- Stakeholders involved meet to agree on the concept idea and funding sources;
- Technicians from partner laboratories work to select the best applications and proceed to drafting the contents;
- The booklet is used in dissemination events and in coaching sessions with companies.

Responsible organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
Minalogic	4 months	< 10.000 €	PU - local authorities PR - cluster association	

Action 2: Innovation cycle

Description of activities and key stakeholders

The Innovation Cycle is a methodology that will be implemented by Minalogic, with the support of the State and of the local authorities, to support the development of SME's addressing breakthrough innovations in order to avoid

the loss of value, as high risks are not usually accepted by traditional SMEs.

Transforming a few high potential SMEs into powerful ISEs, relying on a gain of competitiveness will bring by:

- new usages of technology and societal needs,
- easier access to technologies available inside research institutes
- accompanying the SMEs in their launch on the market of high tech and high value products, a stage requiring on-going capital.

This program will be part of the future Technical Research Institute in Nano electronics.

This action will rely on the mobilisation of all available networks and go-betweens to identify companies and needs for innovation; the booklet created in action 1 is used as a tool to canvass the SME's.

The needs and demands will then be "concentrated", rationalised by the Minalogic Cluster into comprehensive projects, to be realised on the technological R&D platforms, and funded through a dedicated scheme involving private and public funding.

Expected Impact

- Facilitated tech transfer to "traditional SME's" not used to technological innovation;
- Increased number of companies working with research institutions on Nano.

Steps to implementation

- Preparation and signature of an agreement between the stakeholders to determine the framework of the programme (actors involved, beneficiaries, funding etc.);
- Identification of projects and validation (go/no go);
- Support to SMEs all along the launching process of the new product: from the exploration until pre industrialisation (including go/no go phases).

Responsible organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
Minalogic	16 months	100.000 - 300.000 €	PU - regional and national funding	

4 Transregional actions

4.1 Fostering research-business relations

Action 1: Shared common methodologies and tools to promote the use of Nanotechnologies among the companies

Description of activities and key stakeholders

As a consequence of the emphasis placed on the importance of communicating Nanotechnologies to the companies, several tools were conceived to be implemented at local level. Such tools, as for example booklets providing information on target industry issues, application sectors, opportunities and solutions, and coaching sessions for entrepreneurs, are not to be viewed just as a solution to some needs, rather as a pattern for approaching the companies. When developing the concept idea of the tools dedicated to companies, KEEN-Regions will share a common approach/methodology, based on their best practices and previous experiences, as well as on new ideas. The involvement of the relevant partners and the exchange of their ideas and suggestions is expected to produce the most effective tools as possible. In particular, partners will work on defining two ways of approaching companies: a straight approach (face-to-face, guided visits, coaching sessions...) and a roundabout approach (multimedia, booklets...). Starting from shared approaches, each RDC will adjust them according to its specificities and will implement the actions following an independent schedule.

In order to work together from remote and to facilitate the exchange of information, a dedicated virtual group will be created. This social network will allow each member to be informed about others' initiatives in real time.

Expected Impact

- A common methodology to approaching companies in the Nanotech sector developed;
- New tools for the communication of Nanotechnologies to companies created;
- Exchanged sustainable best practices from partner regions and from external regions.

Steps to implementation

- Two separate committees, according to the two approaches, are set up;
- The virtual community is created to facilitate the exchange of information and the submission of ideas;
- Each partner contributes to its committee through the common platform;
- Each partner adjusts and implements the agreed tools according to its local strategies and needs.

Leading organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
Veneto Innovazione	2 months	< € 10.000	In kind contribution from the partners	Exchange of information between partners using social media foreseen

Action 2: Web platform to match Nano-technology offer and demand

Description of activities and key stakeholders

A web platform in the KEEN-Regions area will help matching the demand of companies with the offer of technological providers. Suppliers and clients will interact in an easy and proficient way and good ideas will have the opportunity to be translated into technological innovations thanks to this virtual marketplace.

The platform will present a visible area dedicated to companies and a reserved area dedicated to researchers/scientists. In particular, the research centres recorded in the platform will contribute to updating a visible area dedicated to the most interesting applications of Nano and potentials for new products. A mapping of the equipment and infrastructures in each KEEN region will be made available in a reserved area, with the aim to foster the creation of a community of researchers willing to cooperate.

It should be explored the possibility to integrate and make use of EEN (Enterprise Europe Network) services, in particular establishing collaborations with the EEN regional contact points and the EEN sector group on micro/Nano technology.

KEEN-REGIONS partners will constitute the core group involved in the platform, and the participation of other research centres will be fostered.

Expected Impact

- Increased exploitation of research infrastructures in the KEEN area;
- Newly established collaborations between companies and research centres, both at local and at interregional level;
- New products developed and launched in the market.

Steps to implementation

- A MoU from each partner is collected, as well as a quantification of available resources;
- The technical management structure is defined but the partners;
- The concept idea for the platform is finalized and the web tool implemented;
- Each partner takes charge of carrying out communication activities to spread the use of the platform among the companies located in its territory, according to a common and agreed dissemination plan.

Leading organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
Veneto Innovazione	8 months	€25.000 – 50.0000	PU – own partners' funding	Each partner is expected to contribute financially to the costs. Fees from client companies can be applied from year 2

Action 3. Fostering the emergence of a “cloud cluster for Nanotechnologies”

Description of activities and key stakeholders

International collaboration among companies and research centres is emerging as a key factor to bring on innovation, to stay competitive and to enter new markets. It has been noted that the most efficient model implies players aggregating around some common interest and pushing for that. KEEN-Regions partners are willing to foster a bottom-up action from the companies and the clusters aimed at establishing transregional networks of strategic collaboration.

A virtual common space for companies and clusters, open to the exchange of knowledge and to potential collaborations, will be a flexible tool at disposal of proactive players. The “cloud cluster” will facilitate the spreading of new ideas, new activities and the capacity to innovate. The building of a constructive dialogue among cluster actors and the systematic exchange of information will be the pillars of this virtual space, in which local entrepreneurs and research centres will have the possibility to take advantage of common opportunities.

Expected Impact

- New transnational collaboration projects set up;
- Companies’ competitiveness enhanced;
- Local development fostered.

Steps to implementation

- KEEN-Regions partner clusters explore the interest from associated members to profit from the advantages of the “cloud cluster”;
- In case of a positive reaction, the concept idea and the implementation plan is developed;
- Some light tool to put in contact clusters, companies and research centres at transnational level is set up;
- The “cloud cluster for Nanotechnologies” is open to non-KEEN clusters.

Leading organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
GAIA	6 months	€25.000 – 50.0000	PR - staff time from associated clusters	The activity could be the object of an EU project under the CIP - Clusters internationalisation measures

Action 4. Coordinated impact in Nanofutures platform

Description of activities and key stakeholders

KEEN-Regions partners will coordinate their participation within NANO futures, a European Technology Integrating and Innovation Platform with a strong technological component, supported by the European Commission. The aim

of such coordinate effort is to transfer the pleas emerged in KEEN-Regions project, actively participating in the relevant Working Group, Technology Transfer and Innovation Financing.

The partner acting as a broker toward the community will be Veneto Nanotech, that will explore all relevant possibilities for transferring the KEEN-Regions results to the Nanofutures community.

Expected Impact

- KEEN-Regions RDCs more connected and organized at the EU level;
- KEEN-Regions results widely disseminated through Nanofutures.

Steps to implementation

- Veneto Nanotech takes contacts with the coordinator of the platform;
- Possible solutions to widespread KEEN Regions results are explored;
- Registered partners are able to post news and events in the platform;
- Partners agree to inform each other when they are participating in events organized by Nanofutures.

Leading organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
Veneto Nanotech	No development needed	< € 10.000	In kind contribution from the partners	Exchange of information between partners foreseen

4.2 Generating new ideas

Action 5. Lay the foundations to develop Key Enabling Technologies in KEEN Regions area, placing the focus on end users and on design applications targeted to their specific needs

Description of activities and key stakeholders

Many of our regional partners from industry and research have been actively involved in the High Level Group on Key Enabling Technologies which handed in its report to the Commissioner Nelly Kroes in June 2011. We followed their work with much interest. There is general will to take advantage from the outputs of the HLG. However, the conditions and processes to be set up from the report still have to be discussed between the partners.

In order to be ready when the processes will be defined, target sites will have to be identified. These are places with a real knowhow in nanotechnologies. Sites in our three regions could pretend to be identified as target sites for KET's (maybe 5 in Rhone-Alpes, 3 in Italy and 2 in Spain). Subcontractors shall already be identified and organized in clusters in each region through the help of European funding, which would come from the funding sources identified or set up from KEEN. Thus, when the first technologies will come out of the pilot lines in the target sites the subcontractors will be ready to integrate them into products or to sell them.

Expected Impact

- Enhanced cooperation on nanotechnologies between the three KEEN Regions beyond the project;
- Established focus for the development of nanotechnologies in the three regions in accordance with the KET's recommendations;
- Innovation alliances created.

Steps to implementation (long term)

- Get organised for watching the follow-up made by the Commission after the HLG report on KET's (funding etc.);
- Identify target sites in each region;
- Identify subcontractors;
- Create joint R&D projects with target products matching directly to the subcontractors needs.

Leading organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
CEA	24/30 months	< 25.000 €	In kind contribution from the partners	Partners will keep themselves updated and work together in view of submitting joint projects under Horizon 2020

Action 6. Idea's day in...motion

Description of activities and key stakeholders

The concept of the Ideas Day in Rhone Alpes will be extended to the other KEEN regions, with the aim to organise in the Basque country and in Veneto a similar event. The Ideas Day is a forum for sharing projects and ideas dedicated to innovation Nanotechnology issues, enriched by the approach of other skills and other world visions such as art, design, human and social sciences. This day is mobilizing around the key players in industrial innovation, students and researchers, society. By combining the looks, cultures and skills, IDEAs Day offers the opportunity to participate in a discussion on issues related to innovation, questioning the links between industrial and societal issues. The Idea's day fosters co-creation of new products for the benefit of society, paying special attention to the demands of the market.

The Idea's day in the three regions will focus on providing understanding of innovation management and how to do in practice. Dedicated activities will put in evidence the needs of the local industry and the promotion of the local know-how. Starting from the Minatec Ideas Lab initiative, KEEN-Regions partners will share a common model to be implemented at regional level. Each region will invite the other partners to present their competencies and contributions during the day, as well as their success stories. Research partners from the KEEN-Regions will lead the initiative, with the proactive contribution of the business and the public partners. Every 2 or three year a

"special idea's day could be organized in one of the three KEEN regions in cooperation (cofunding also) with the partners of the other regions.

Expected Impact

- Collaborations between non-conventional actors and Nanotech research units triggered
- Raised awareness on Nanotechnologies among society at regional level
- Increased trans-regional exchanges between researchers belonging to the three RDCs

Steps to implementation

- A transnational scientific committee to define the orientations of the Idea days in the different regions is set up;
- A MoU for the periodic invitation of KEEN-Regions partners is signed;
- Each RDC takes charge of collecting the necessary resources for the organization of the event in its Region on an annual basis;
- Partners from the Keen Regions are invited to the next Idea's day in Grenoble (in 2012 or 2013). Co-construction and cofunding of this event by the three regions.

Leading organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
CEA	6 months	€ 80.000 - 100.000	PR - private sponsorships PR - companies participating in the forum PU - regional and local funding	Public funding from regional and local authorities is not applicable to all partners

Action 7. Benefiting society through the Eranet scheme

Description of activities and key stakeholders

Developing common projects is important for the sustainability of the KEEN partnership and it helps to enlarge the partnership and to find the best opportunities. The Eranet scheme is a valuable solution for pooling local resources and investing them in a joint initiative. Therefore, an Eranet project proposal will aim at coordinating the research efforts of the participating Member States and Regions to support highly innovative industrial research projects. KEEN-Regions partners are willing to reach a critical mass of companies, thus they will support the presentation of a proposal under the Eranet scheme with an open topic (i.e. smart cities), with nanotechnology playing its part as an enabling technology. Such approach is expected to generate significant benefits to the companies, the technology providers and society in general. Industrial priorities will be targeted.

The stakeholders involved in the proposal submission phase will include the Regional authorities and the financial agencies of the KEEN-Regions, as well as new Regions and States with a lively nanotechnology sector.

Expected Impact

- Enhanced trans-regional research-industrial cooperation on topic addressing societal challenges;
- New academia-business partnerships established;
- Society benefits from innovate projects transferring knowledge into industrial technology applications.

Steps to implementation

- Since the 2007-2013 programming period is coming to an end, KEEN-partners will develop a concept for a joint proposal to be submitted in the next programming period 2014-2020.

Leading organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
Veneto Region	24 months	< 25.000 €	In kind contribution from the partners	The activity will lead to the submission of an ERANET project proposal under Horizon 2020

4.3 Valorising the human capital

Action 8. KEEN partners jointly apply for Marie Curie Actions: Initial Training Networks (ITN) and Industry-Academia Partnerships and Pathways (IAPP)

Description of activities and key stakeholders

In order to foster trans-regional mobility of researchers, KEEN-Regions partners will jointly apply to Marie Curie actions in the coming calls for proposals. The aim is to foster research-research and research-business mobility, as a means to valorise the human capital in the three Regions and to encourage fruitful exchanges between the partners involved.

For the purposes and the composition of the partners, two actions have been identified:

- Initial Training Networks (ITN): universities, research centres and companies submit a proposal with the aim to recruit and employ eligible researchers or host them, and provide specialised training modules to early stage researchers;
- Industry-Academia Partnerships and Pathways (IAPP): universities, research centres and enterprises submit a proposal promoting strategic research partnership with a strong mobility element. The funding covers exchange of know-how through two-way or one-way secondments of research staff between the commercial and non-commercial partners.

Expected Impact

- Transnational public-private partnerships in Nanotechnologies settled;

- Early-stage researchers trained and specialised;
- Knowledge creation and knowledge transfer between innovative academic and leading-edge industry partners.

Steps to implementation

- Involved partners define a common specific topic of interest;
- A mapping of companies working in the specific field in the three regions is carried out;
- Mapped companies are asked to express their interest in hosting researchers and participating in the project;
- Whether results from the mapping exercise and the request for partnership declarations in the three regions are negative, partnership expands to other regions.

Leading organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
CIDETEC	8 months	< 25.000 €	In kind contribution from the partners	The activity will lead to the submission of joint Marie Curie project proposals

Action 9. Gateway for research careers in the KEEN area

Description of activities and key stakeholders

Sharing information on researcher's mobility programmes, calls and vacancies is an easy and concrete way to foster the mobility of researchers in the KEEN-Regions area. The partners will use the KEEN-Regions platform as the location to post vacancies and funding announcements. The platform may be modified accordingly. Partners will also give visibility to the others partners' calls and announcements whenever convenient.

Expected Impact

- Local opportunities for researchers' mobility get wider visibility;
- Bilateral mobility between the three KEEN Regions is enhanced;
- New trans-regional collaboration opportunities are created.

Steps to implementation

- The platform administrator verifies the possibility to add an app for advertising mobility opportunities;
- Once the platform is modified, partners update the contents of the new app;
- In order to enlarge the impact of the action, KEEN partners involve other local research institutes encouraging them to post their own vacancies on the platform.

Leading organisation	Development timeframe	Start-up budget range	Sources of financing	Notes
Veneto Innovazione	3 months	< € 10.000	PU – own partners' funding In kind contribution from the partners	Staff working time is needed to updated the contents in the platform